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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/608,268	06/27/2003	Douglas B. Davis	5577-261	8316
20792	7590	03/08/2007	EXAMINER	
MYERS BIGEL SIBLEY & SAJOVEC			HIGA, BRENDAN Y	
PO BOX 37428			ART UNIT	PAPER NUMBER
RALEIGH, NC 27627			2153	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/08/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/608,268	DAVIS ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Brendan Y. Higa	2153	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 27 June 2003.  
 2a) This action is FINAL.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-23 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1-23 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on 27 June 2003 is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>06/2003</u> . | 5) <input type="checkbox"/> Notice of Informal Patent Application |
|  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

This communication is in response to the application filed on June 27, 2003.

Claims 1-23 are pending.

### ***Priority***

No claim for priority has been made in this application.

The effective filing date for the subject matter defined in the pending claims in this application is June 27, 2003.

### ***Drawings***

The Examiner contends that the drawings submitted on June 27, 2003 are acceptable for examination proceedings.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 13 and 14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 13 recites "a system according to claim 14" and claim 14 recites "a system according to claim 13", thus the dependency of claim 13 and 14 are indefinite. However, for the purpose of this office action the examiner has interpreted claim 13 as "a system according to claim 12".

***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 18-23 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The claimed invention is directed to a computer program product embodied on a computer readable medium comprising program code, however, pages 5-6 of the specification provides evidence that the applicant intends for the computer readable medium to include transport medium (i.e. electronic, magnetic, optical, electromagnetic, infrared signals) as well as paper medium which are non-statutory under 35 U.S.C 101.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

**Claims 1-4, 9-12, 16-19, 22, and 23 rejected under 35 U.S.C. 102(e) as being**

**anticipated by Atwal et al. (US 2003/0061404), hereafter referred to as Atwal.**

As per claim 1, Atwal teaches a method of providing web services, the method comprising: creating an electronic record of a contract (modified WSDL) for a service provider to provide web services meeting a web service category definition at a web services hub of a service domain (Gateway, Fig. 5, ref. 500, see [0070]); and providing a web service to a service requestor from the service domain responsive to the electronic record of the contract (“sends the modified WSDL to the client application”, see [0070]).

As per claim 2, Atwal further teaches wherein providing a web service to the service requester comprises providing the service to the service requestor without requiring the service requestor to discover a service instance that provides the service (see [0059] and [0069], wherein the gateway module is responsible for the discovery of the web service).

As per claim 3, Atwal further teaches, wherein providing the service to the service requestor comprises providing the service to the service requestor without requiring creation of a contract for the use of a specific service instance (see [0010], [0071] and [0081], wherein the contract is dynamically modified by the gateway such that, although it appears that the services offered by the dynamic contract are provided by a

web service, no specific service contract actually exists with the particular web service).

As per claim 4, Atwal further teaches wherein providing a web service comprises: identifying a plurality of ports operative to provide web services meeting the service category definition at the web service hub (see [0059], wherein the web service registry repository provides a mapping from the web service 25 URI to the physical location, read as a port address, of the web service URI also see [0061] wherein the client application requires 10 [port] addresses to connect to multiple web services, read as identifying a plurality of ports); and providing the web service to the service requestor responsive to identification of the ports ([0059]).

As per claim 9, Atwal further teaches, wherein creating an electronic record of a contract comprises creating an electronic record of a first contract (see [0070] the gateway module receives an API contract 753, read as a first contract, from the web service 25), creating an electronic record of a second contract (modified WSDL 754, read as a second contract) to provide web services that meet a service level criterion to the service requestor at the web services hub (wherein the modified WSDL is customized for the client application, see [0010], [0012], and [0071]), and wherein providing a web service to the service requester comprises providing the web service to the service requester via the web services hub responsive to the electronic records of the first and second contracts (see [0071] wherein communication between the client application and the gateway is facilitated by using the modified WSDL, read as a

second contract, and wherein the normal WSDL file, read as a first contract, is used to facilitate communication between the gateway and a corresponding web service).

As per claim 10, Atwal further teaches wherein providing a web service to the service requestor comprises dispatching a service request from the service requester in the service domain based on the electronic records of the first and second contracts (see [0071] wherein communication between the client application and the gateway is facilitated by using the modified WSDL, read as a second contract, and wherein the normal WSDL file, read as a first contract, is used to facilitate communication between the gateway and a corresponding web service) and a service policy of the web services hub (authentication and billing which is facilitated by the gateway, see [0086]-[0090]).

Claims 11,12,16-19,22, and 23 are rejected under the same rationale as claims 1-4, 9 and 10 since they recite substantially identical subject matter. Any differences between the claims do not result in patentably distinct claims and all of the limitations are taught by the above cited art.

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

**Claims 5-8, 13-15, 20 and 21 are rejected under 35 U.S.C. 103(a) as being obvious over Atwal (US 2003/0061404), in view of Hickman (US 2005/0198188).**

As per claim 5, Atwal further teaches, see [0083], "*When a web service 25 changes its physical location, it is just a matter of updating the data table in the web service registry repository 530 that indicates its location to the gateway module 500. The original entry in the web service registry repository 530 may be created through a gateway module system administration application when a web service 25 is registered with the gateway module 500*".

However, Atwal does not teach the step of registering and updating the web service with the gateway module comprising polling at least one web services node

subordinate to the web services hub to identify at least one service provided by the node; and updating a description of a service category responsive to the polling.

However, in the same art of web services, Hickman teaches a method of automatically discovering web services by querying a known UDDI server address containing a list of web services and identifying from the list suitable web services and automatically downloading at least one machine readable description of the web service (see abstract).

One of skill in the art would have been motivated to combine the teachings of Atwal with the teachings of Hickman for polling web service in communication with the gateway in order to allow the gateway to automatically discover web services.

As per claim 6, Hickman further teaches wherein polling at least one web services node comprises examining a WSDL (Web Service Description Language) description maintained at a subordinate web services node ("downloading at least one machine readable description of the web service [using UDDI] (read as a WSDL description)", see abstract and [0001]).

The same motivation that was utilized for combining Atwal and Hickman in claim 5 applies equally well to claim 6.

As per claim 7, Hickman further teaches wherein polling at least one web services node comprises polling a plurality of levels of web services nodes (see Fig. 2, ref. 13, and [0021], wherein the web services are stored at multiple servers) using a

coordinated polling interval scheme ("periodically by the CE device", see [0010] and claim 2).

The same motivation that was utilized for combining Atwal and Hickman in claim 5 applies equally well to claim 7.

As per claim 8, Hickman further teaches wherein polling a plurality of levels of web services nodes using a coordinated polling interval scheme using staggered polling intervals for adjacent levels of the web services domain ("periodically (read as staggered polling intervals) by the CE device", see [0010] and claim 2).

The same motivation that was utilized for combining Atwal and Hickman in claim 5 applies equally well to claim 8.

Claims 13-15, 20 and 21 are rejected under the same rationale as claims 5-8 since they recite substantially identical subject matter. Any differences between the claims do not result in patentably distinct claims and all of the limitations are taught by the above cited art.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brendan Y. Higa whose telephone number is (571)272-5823. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenton Burgess can be reached on (571)272-3949. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

BYH



CLINTON B. BURGESS  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100